

Nonpoint Source Solutions for Construction

Construction

Sediment washing into streams is one of the biggest water quality problems in Kentucky. Sediment muddies up the water, kills or weakens fish and other organisms, and ruins wildlife habitat. It is not difficult to reduce erosion and prevent sediment from leaving construction sites. Planning your construction project can help you avoid costly mistakes in controlling erosion and sediment loss to nearby waterways.



What contributes to erosion?

- Removing vegetation
- Removing topsoil and organic matter
- Reshaping the lay of the land
- Exposing subsoil to precipitation
- Failure to cover bare soil areas
- Allowing gullies to form and grow larger
- Removing vegetation along stream banks



A pre-construction meeting should occur prior to construction. It is important to develop an Erosion and Sediment Control BMP Plan during the planning process.



Seeding or covering bare soil with mulch, blankets, mats, or other products as soon as possible is the cheapest way to prevent erosion. Grass seeding alone can reduce erosion by more than 90%.



The purpose of a trap basin is to provide an area where muddy runoff is allowed to pool, so sediment will settle out. Sediment and trap basins should be installed before excavation or fill work begins.



When properly installed, the use of sediment barriers such as silt fences are effective BMPs for preventing sediment and pollutants in runoff from the construction site from entering nearby streams.

Final Site Stabilization

Erosion and sediment controls need to be inspected and maintained. Temporary controls must be removed and permanently stabilized when the project is completed. Failing to fill, grade, and seed temporary sediment traps or basins or failing to remove silt fences, silt check dams, and other controls can result in legal liabilities and KPDES stormwater permit violations. No site is closed out properly until vegetation is established on all bare soil areas and ditches are stable. Check seeded areas, and reseed areas where vegetation is thin or absent.



When the project is completed:

- Remove all silt fencing and stakes and accumulated sediment
- Culvert inlets should be stabilized, vegetated, and clear of debris
- Ensure ditches and channels are well vegetated
- Cut away and remove all loose, exposed erosion control blanket material and reseed bare soil areas.
- Replace rock washouts near culvert and channel outlets. Fill, grade, and seed or riprap eroded areas around inlets and outlets
- Fill in, grade, and seed all temporary sediment traps and basins
- Remove temporary stream crossings and re-plant vegetation

- ☒ Sediment
- ☐ Pathogens
- ☒ Habitat alterations
- ☐ Organic Enrichment
- ☒ Nutrients